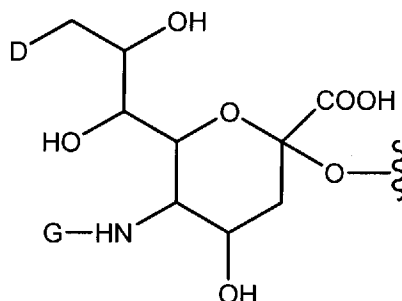


**Listing of Claims:**

- 1 **1.** (Currently amended) A follicle stimulating hormone peptide conjugate comprising at least one  
2 the moiety having the formula:



3  
4 wherein

5 D is a member selected from -OH and R<sup>1</sup>-L-HN-;

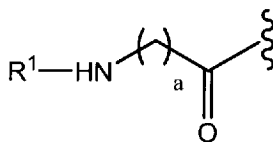
6 G is a member selected from R<sup>1</sup>-L- and -C(O)(C<sub>1</sub>-C<sub>6</sub>)alkyl;

7 R<sup>1</sup> is a moiety comprising a member selected a moiety comprising a straight-chain or branched  
8 poly(ethylene glycol) residue; and

9 L is a linker which is a member selected from a bond, substituted or unsubstituted alkyl and  
10 substituted or unsubstituted heteroalkyl,

11 such that when D is OH, G is R<sup>1</sup>-L-, and when G is -C(O)(C<sub>1</sub>-C<sub>6</sub>)alkyl, D is R<sup>1</sup>-L-NH-.

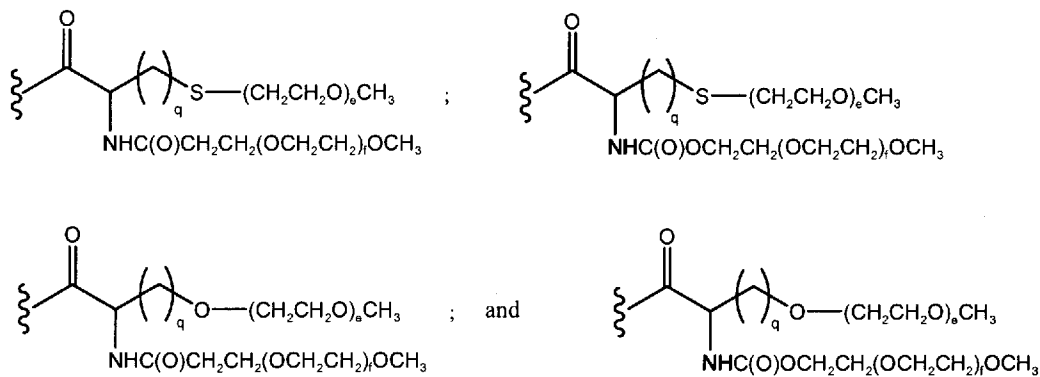
- 1 **2.** (Currently amended) The peptide conjugate according to claim 1, wherein R<sup>1</sup>-L-L-R<sup>1</sup> has the  
2 formula:



3  
4 wherein

5 a is an integer from 0 to 20.

- 1 **3.** (Currently amended) The peptide conjugate according to claim 1, wherein R<sup>1</sup> has a structure that  
2 is a member selected from:

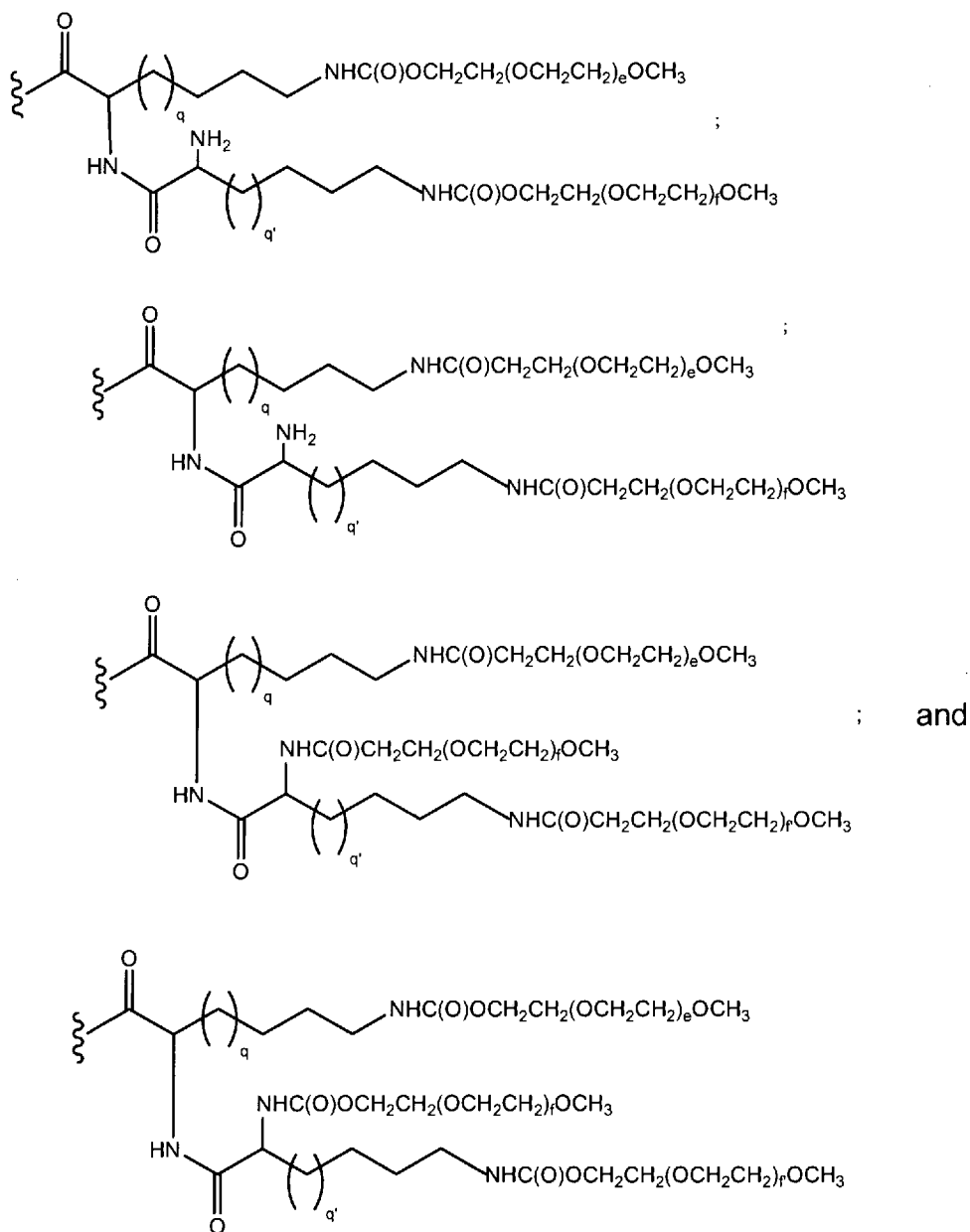


wherein

e and f are integers independently selected from 1 to 2500; and

q is an integer from 0 to 20.

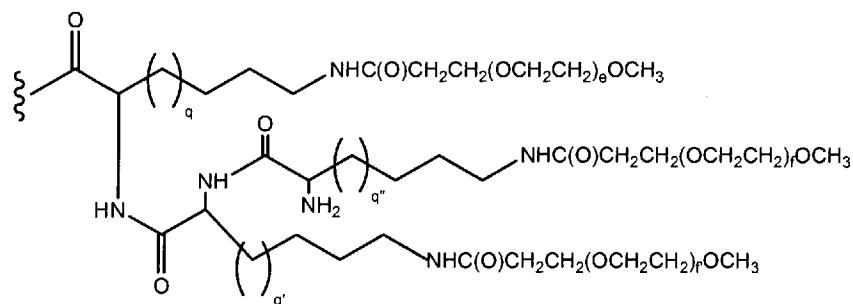
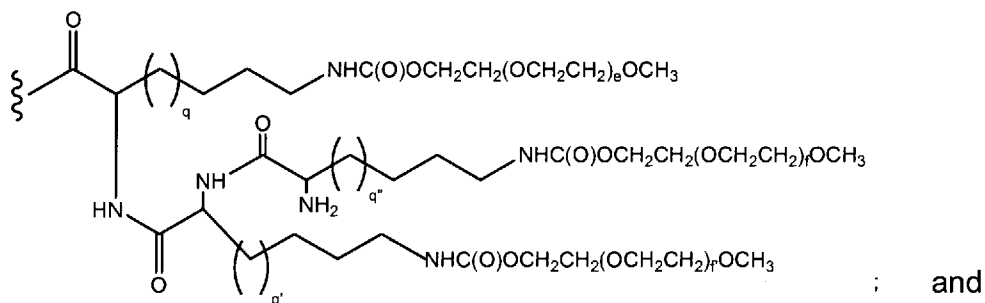
4. (Currently amended) The peptide conjugate according to claim 1, wherein R<sup>1</sup> has a structure that is a member selected from:



wherein

e, f and f' are integers independently selected from 1 to 2500; and  
 q and q' are integers independently selected from 1 to 20.

5. (Currently amended) The peptide conjugate according to claim 1, wherein R<sup>1</sup> has a structure that is a member selected from:

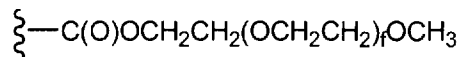
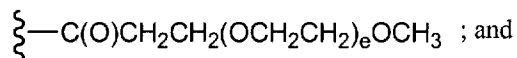


wherein

e, f and f' are integers independently selected from 1 to 2500; and

q, q' and q'' are integers independently selected from 1 to 20.

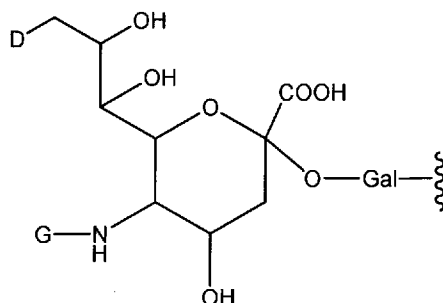
6. (Currently amended) The peptide conjugate according to claim 1, wherein R<sup>1</sup> has a structure that is a member selected from:



wherein

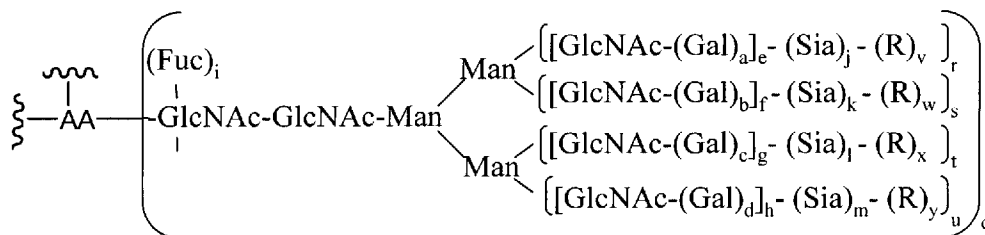
e and f are integers independently selected from 1 to 2500.

7. (Currently amended) The FSH peptide conjugate according to claim 1, wherein said moiety has the formula:



8. (Currently amended) The peptide conjugate according to claim 1, wherein said peptide has an amino acid sequence selected from SEQ[.] ID[.] NO:1 and SEQ ID NO:2.

9. (Currently amended) The ~~FSH~~ peptide conjugate according to claim 1, wherein said moiety has the formula:



wherein

a, b, c, d, i, r, s, t, and u are integers independently selected from 0 and 1;

q is 1;

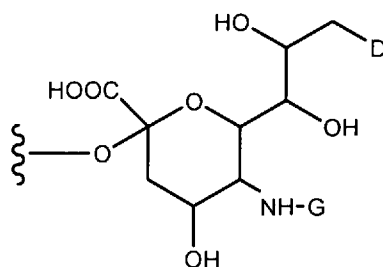
e, f, g, and h are members independently selected from the integers from 0 to 6;

j, k, l, and m are members independently selected from the integers from 0 and 100;

v, w, x, and y are independently selected from 0 and 1, and least one of v, w, x and y is 1;

AA is an amino acid residue of said FSH peptide;

Sia-(R) has the formula:



wherein

~~D is a member selected from -OH and  $R^1-L-HN-$ ;~~

~~G is a member selected from  $R^1-L-$  and  $-C(O)(C_1-C_6)alkyl$ ;~~

~~$R^1$  is a moiety comprising a member selected a straight chain or branched poly(ethylene glycol) residue; and~~

~~L is a linker which is a member selected from a bond, substituted or unsubstituted alkyl and substituted or unsubstituted heteroalkyl,~~

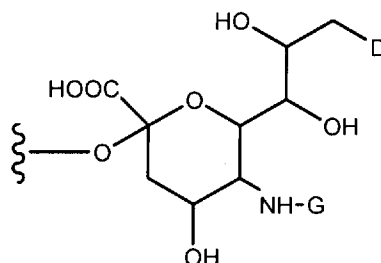
~~such that when D is OH, G is  $R^1-L$ , and when G is  $-C(O)(C_1-C_6)alkyl$ , D is  $R^1-L-NH$ .~~

**10.** (Currently amended) The peptide conjugate according to claim 9, wherein said amino acid residue is an asparagine residue.

**11.** (Currently amended) The peptide conjugate according to claim 10, wherein said amino acid residue is an asparagine residue ~~which is a member~~ selected from N7 of SEQ ID NO:2, N24 of SEQ ID NO:2, N52 of SEQ ID NO:1, and N78 of SEQ ID NO:1, ~~and combinations thereof.~~

**12.** (Currently amended) The peptide conjugate according to claim 1, wherein said peptide is a bioactive follicle stimulating hormone peptide.

**13.** (Original) A method of making a FSH peptide conjugate comprising the moiety:



wherein

D is a member selected from -OH and  $R^1-L-HN-$ ;

G is a member selected from  $R^1-L-$  and  $-C(O)(C_1-C_6)alkyl$ ;

Response to Restriction Requirement dated August 17, 2009

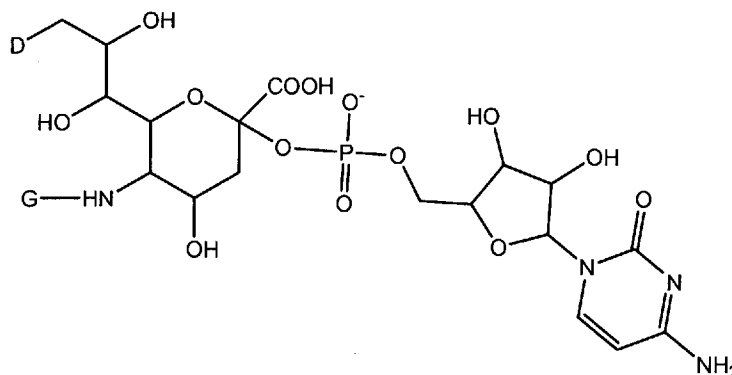
$R^1$  is a moiety comprising a member selected a straight-chain or branched poly(ethylene glycol) residue; and

$L$  is a linker which is a member selected from a bond, substituted or unsubstituted alkyl and substituted or unsubstituted heteroalkyl,

such that when  $D$  is OH,  $G$  is  $R^1-L$ -, and when  $G$  is  $-C(O)(C_1-C_6)alkyl$ ,  $D$  is  $R^1-L-NH$ -,

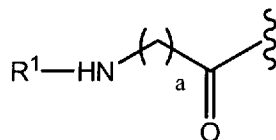
said method comprising:

(a) contacting a substrate FSH peptide with a PEG-sialic acid donor moiety having the formula:



and an enzyme that transfers said PEG-sialic acid onto an amino acid or glycosyl residue of said FSH peptide, under conditions appropriate for the transfer.

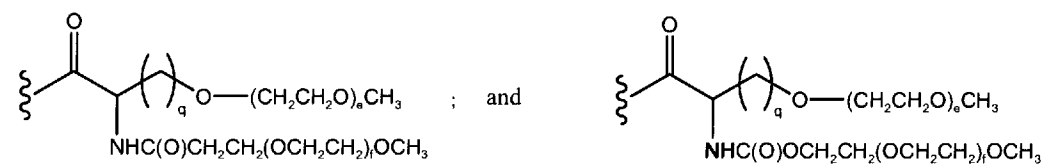
14. (Currently amended) The method according to claim 13, wherein  $R^1-L-L-R^1$  has the formula:



wherein

$a$  is an integer from 0 to 20.

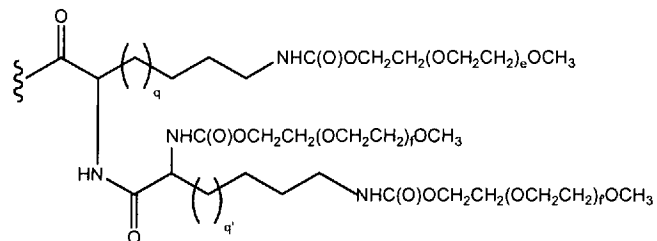
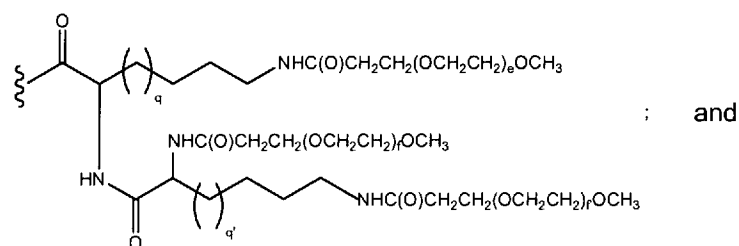
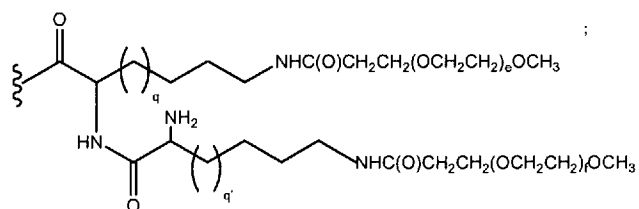
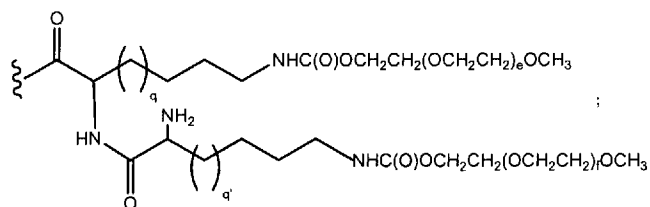
15. (Original) The method according to claim 13, wherein  $R^1$  has a structure that is a member selected from:



q is an integer from 0 to 20.

**16.** (Original) The method according to claim 13, wherein  $R^1$  has a structure that is a member selected from:





3

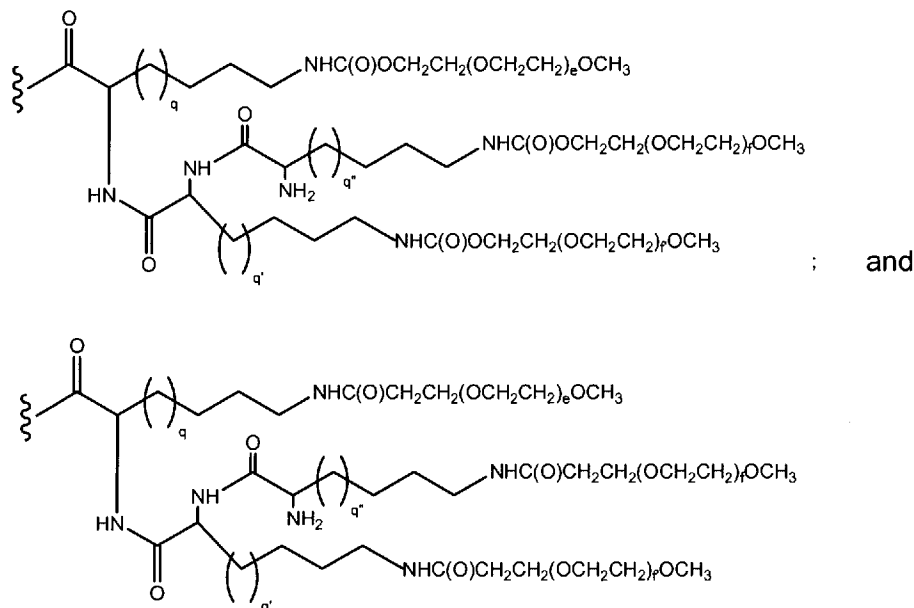
4 wherein

5 e, f and f' are integers independently selected from 1 to 2500; and

6 q and q' are integers independently selected from 1 to 20.

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17. (Original) The method according to claim 13, wherein  $R^1$  has a structure that is a member selected from:

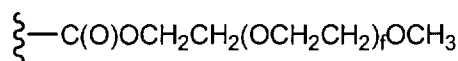
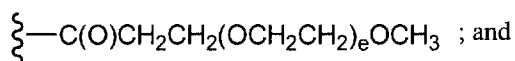


wherein

e, f and f' are integers independently selected from 1 to 2500; and

q, q' and q'' are integers independently selected from 1 to 20.

18. (Original) The method according to claim 13, wherein  $R^1$  has a structure that is a member selected from:



wherein

e and f are integers independently selected from 1 to 2500.

19. (Original) The method of claim 13, further comprising, prior to step (a):

(b) expressing said substrate follicle stimulating hormone peptide in a suitable host.

20. (Original) The method of claim 13, wherein said host is selected from an insect cell and a mammalian cell.

1   **21.**     (Currently amended) A method of stimulating ovarian follicles in a mammal, said method  
2   comprising administering to said mammal ~~the a~~ peptide conjugate according to claim 1.

1   **22.**     (Currently amended) A method of treating a condition in a subject in need thereof, said condition  
2   characterized by reproductive infertility said method comprising the step of administering to the subject  
3   an amount of ~~the a~~ peptide conjugate according to claim 1, effective to ameliorate said condition in said  
4   subject.

1   **23.**     (Currently amended) A pharmaceutical formulation comprising the ~~follicle stimulating hormone~~  
2   peptide conjugate according to claim 1, and a pharmaceutically acceptable carrier.